



# Monterey Bay NMS Deepwater Lost Fishing Gear Removal Project

December 8, 2011



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MONTEREY BAY



## Year 3 of Project





## Partners

- Cordell Bank NMS
- UC Davis' SeaDoc Society
  - CSU Monterey Bay
- CA Department of Fish & Game
- Southwest Fisheries Science Center
- Monterey Peninsula College MATE Program
  - Marine Applied Research & Exploration
    - California Academy of Sciences
      - Steinhart Aquarium



## Purpose

- Document the abundance & types of gear in water up to 1000 ft
- Refine deepwater ROV retrieval procedures
- Reduce impacts such as navigational hazards
- Conduct site surveys & characterization in unexplored locations
- Provide outreach through HD images & video
  - Provide technical experience for staff



## Background

- Funded through federal settlement
- Collaborative project with many partners
- Identified as priority in management plan





## Impacts

- Long lines, gill & trawl nets, & crab & fish traps can serve as long term entrapment mechanisms
  - Physical damage to habitat
  - Hazards & nuisance to navigation



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## Vessel Platforms

*F/V Donna Kathleen & R/V Fulmar*





## Methods

Phantom HD2 ROV – owned and operated by the West Coast Sanctuaries





## Methods

ROV manipulator clips onto net or trap





## Methods

Fishing Gear Targets are provided by:

Southwest Fisheries Science Center (Delta Sub)  
Department of Fish and Game  
Fishermen

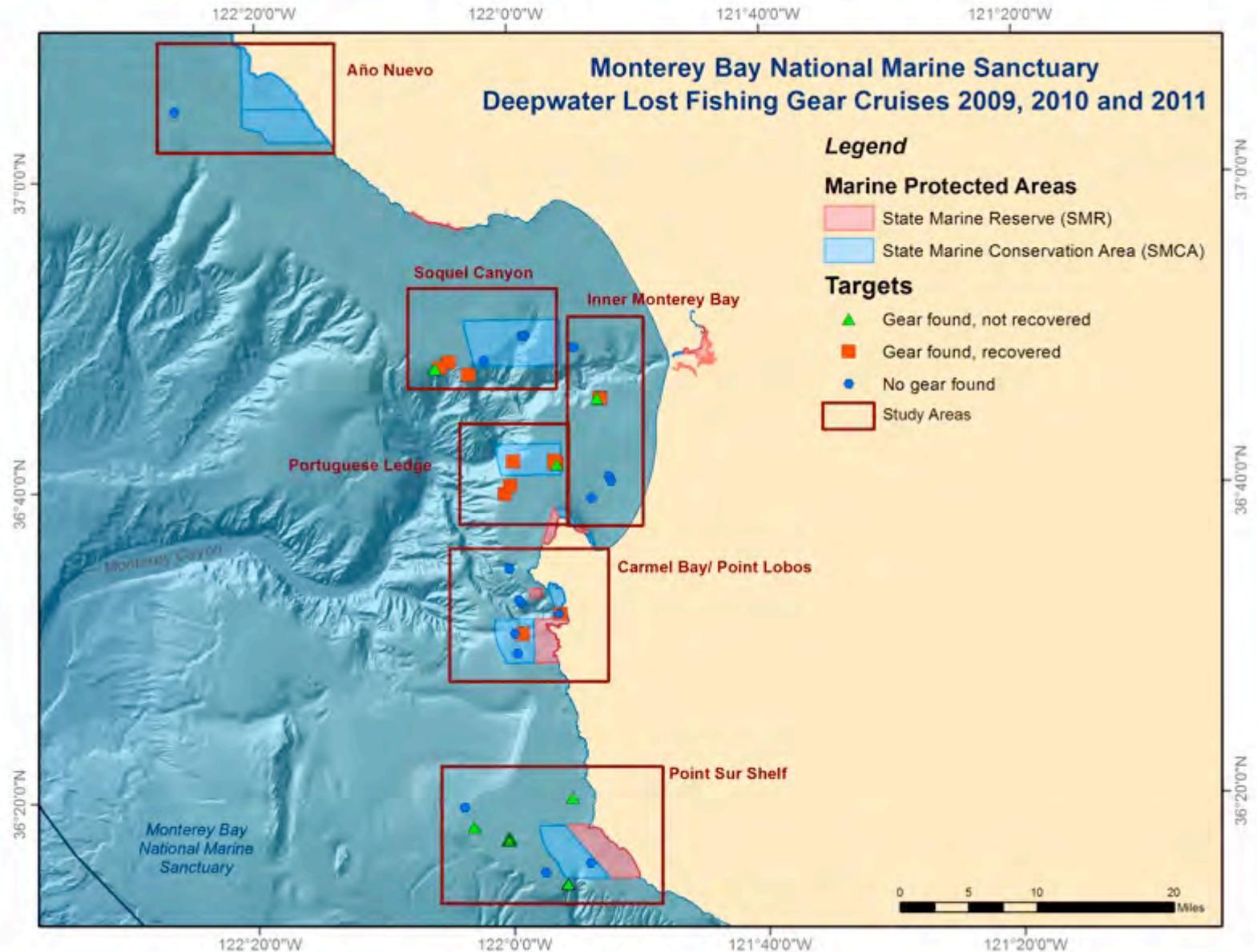


## Six Main Study Areas

Año Nuevo  
Inner Monterey Bay (north & south)  
Soquel Canyon  
Portuguese Ledge  
Carmel Bay/Point Lobos  
Point Sur Shelf



# Deepwater Lost Fishing Gear Project





## Methods: Gear Types





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## Methods: Processing Gear & Specimens





## Research Component: Preserved & Live Specimen Collections





# Deepwater Lost Fishing Gear Removal Project





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## Retrieved to date:

Over 1000 ft of rockfish gillnet,  
a variety of crab and spot prawn traps  
& 700 lbs of clump weight lead



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## What Else?

### The Eonfusion Visualization Project





## Outreach Products

Lost and abandoned fishing gear can still pose grave risks to marine life

### In search of bay's ghost fishers

By JANE LEE  
Herald Staff Writer

A research team led by NOAA's Monterey Bay National Marine Sanctuary recently went in search of ghosts in the waters off Monterey.

They found them — or at least their gear.

Fishing lines, nets or traps lost or abandoned by fishermen can still snare animals, an occurrence known as ghost fishing.

Because the gear continues to work after the fishermen are long gone, marine animals can get caught or trapped in areas specifically set aside for their protection.

"Most of the gear we



A research team uses a remotely operated vehicle to look for lost and abandoned fishing gear in the sanctuary.

Courtesy of NOAA MONTEREY BAY NATIONAL MARINE SANCTUARY

found was in marine protected areas," said Karen Grimmer, deputy superintendent of the sanctuary.

Although they find gear inside and outside of marine protected areas, the kinds of gear they find tend to differ

with location.

Grimmer said gear inside marine protected areas tends to be older, left before the areas were designated as protected. Newer

Please see Gear page A9

- Mission logs on Facebook
- Articles & TV segments
- YouTube videos
- One-pager & web page
- Cruise & summary reports
- Econfusion project & PSA
- Fish & Invert ID

• **LFG web page:** <http://montereybay.noaa.gov/resourcepro/resmanissues/lostgear.html>



## Now What?

Removing the trawl net is a priority (if funding is available)

Continue to collect target information from fishermen & researchers

Further develop Eonfusion visualization technology

Continue CSUMB & MATE Center Internships



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## The Team

### Science Party

- Karen Grimmer, MBNMS – PI & Cruise Leader
- Lisa de Marignac, MBNMS – Project Coordinator
- Sophie de Beukelaer, MBNMS – Navigator
- Michael Carver, CBNMS – Marine Technician
- Andy Lauermann, MARE – ROV Pilot
- CSU Monterey Bay Staff – Deck Support
- MPC Community College – Deck Support

### Crew of the Vessels

- Captain Tim Maricich
- Mate Donna Maricich
- Mate Tyler Maricich
- Captain Dave Minard
- Mate Hans Bruning



### Special Thanks to

- Dr. Diana Watters, NMFS for Delta Sub data
- Dr. Mary Yoklavich, NMFS for Delta Sub data



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